

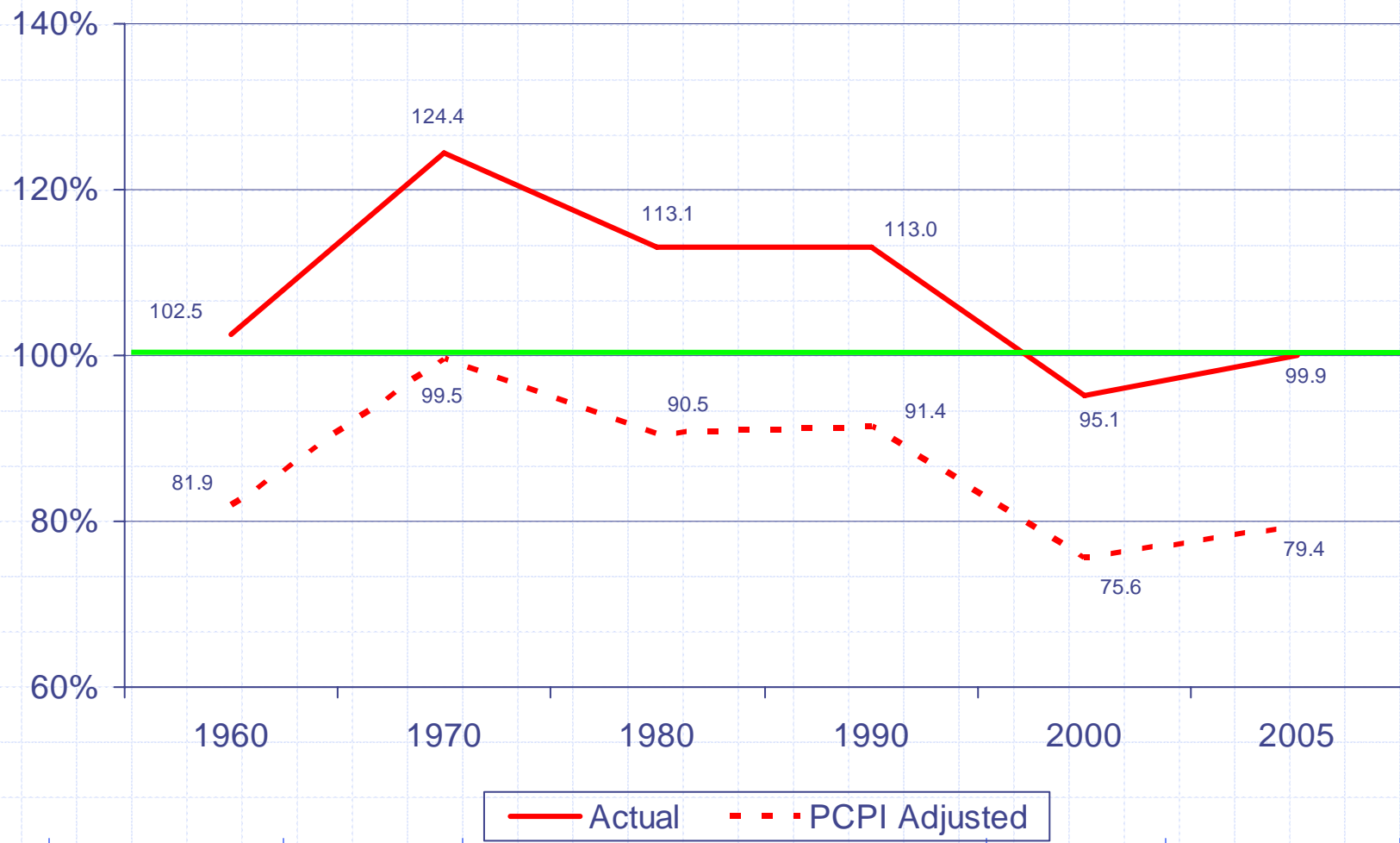


The Workforce Development Challenges Facing Hawai`i

Hawai`i NGA Project

January 2007

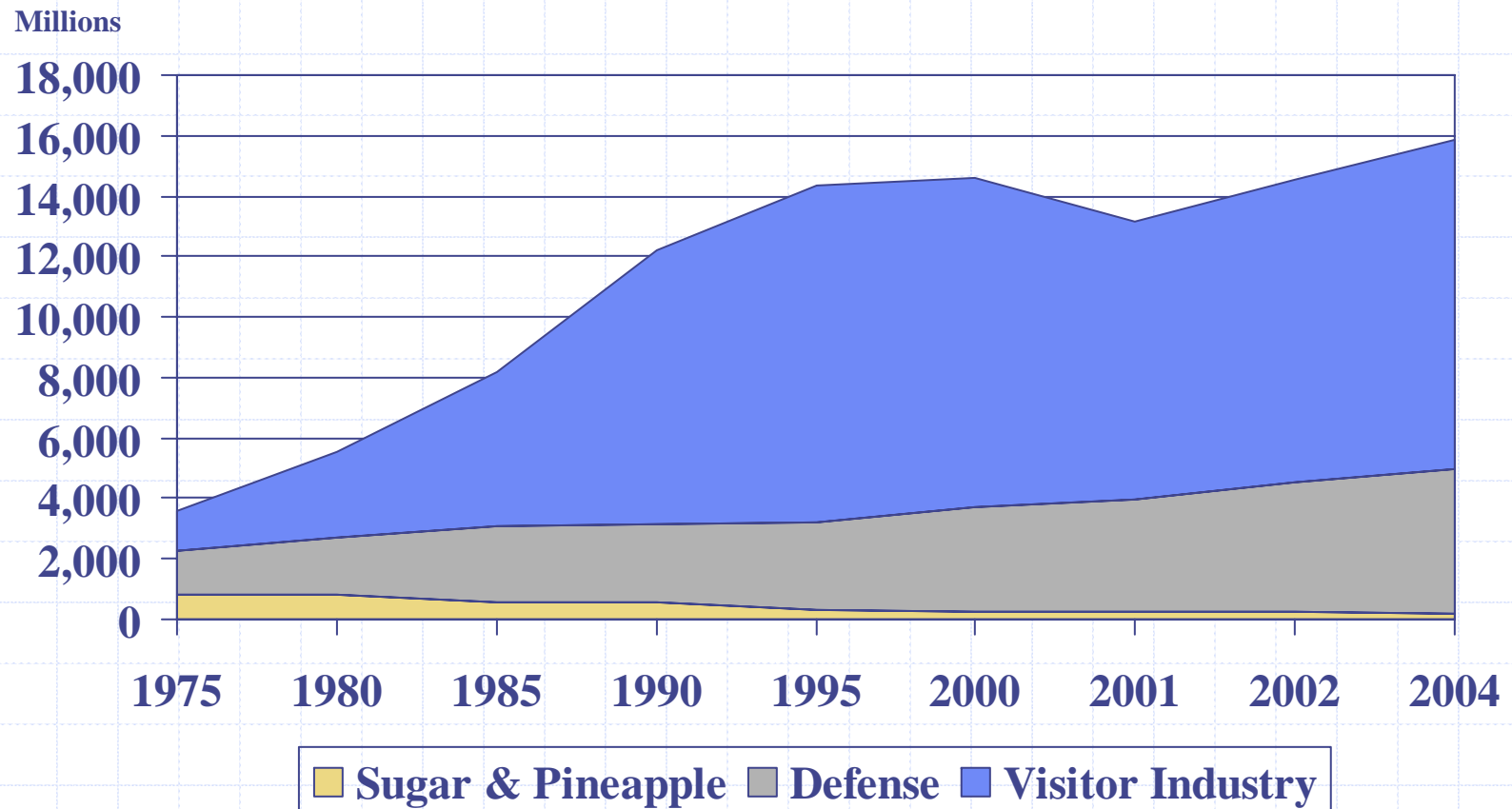
Declining Per Capita Personal Income as a Percent of U.S. Average Hawai`i, 1960-2005



Source: U.S. Census Bureau, Bureau of Economic Analysis

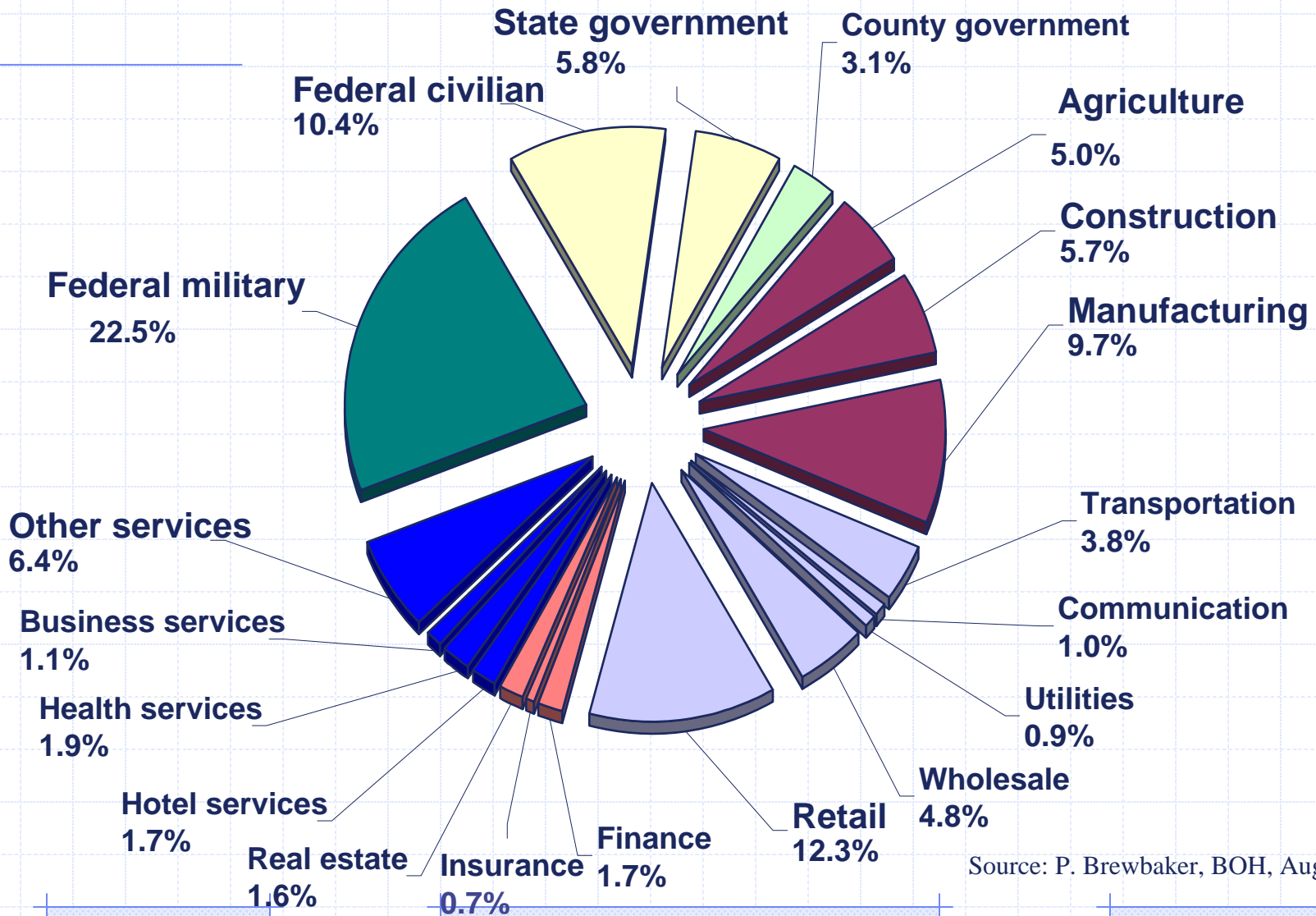
Over Dependent on a Dominant Mature Industry

Export Earnings 1975-2004



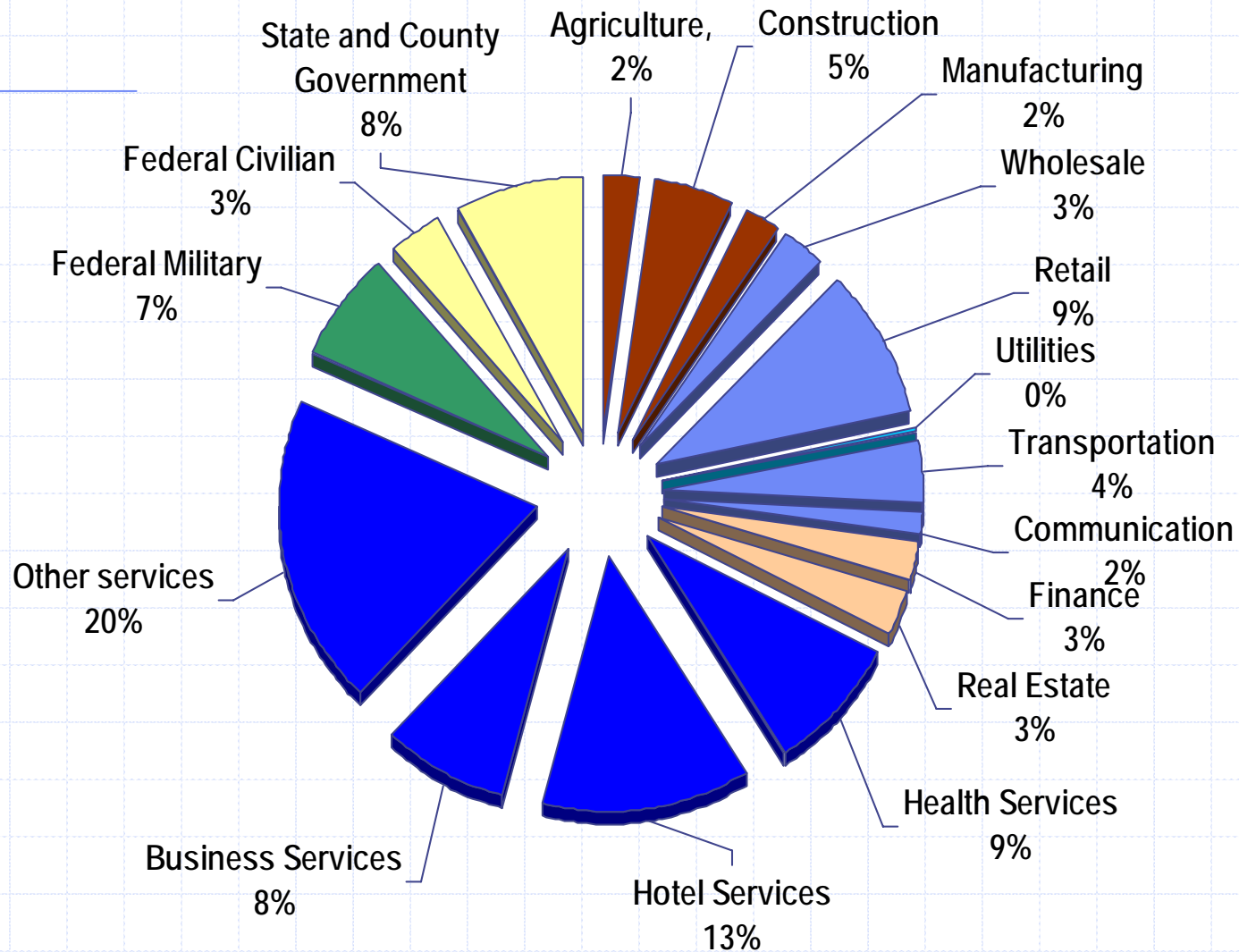
Source: Hawaii DBEDT

Hawai'i Employment by Industry - 1962

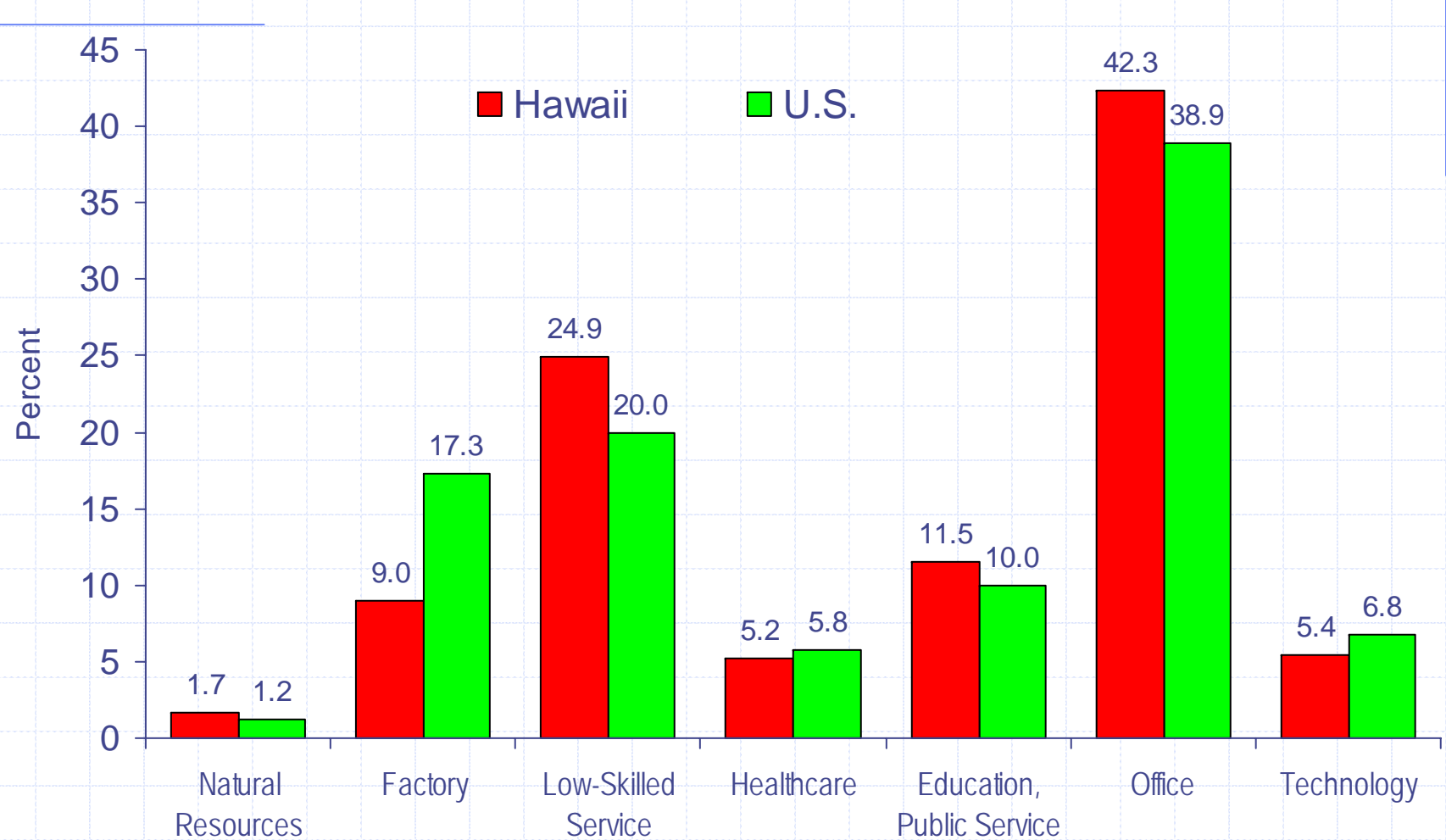


Source: P. Brewbaker, BOH, Aug. 02

Hawai'i Employment by Industry - 2004

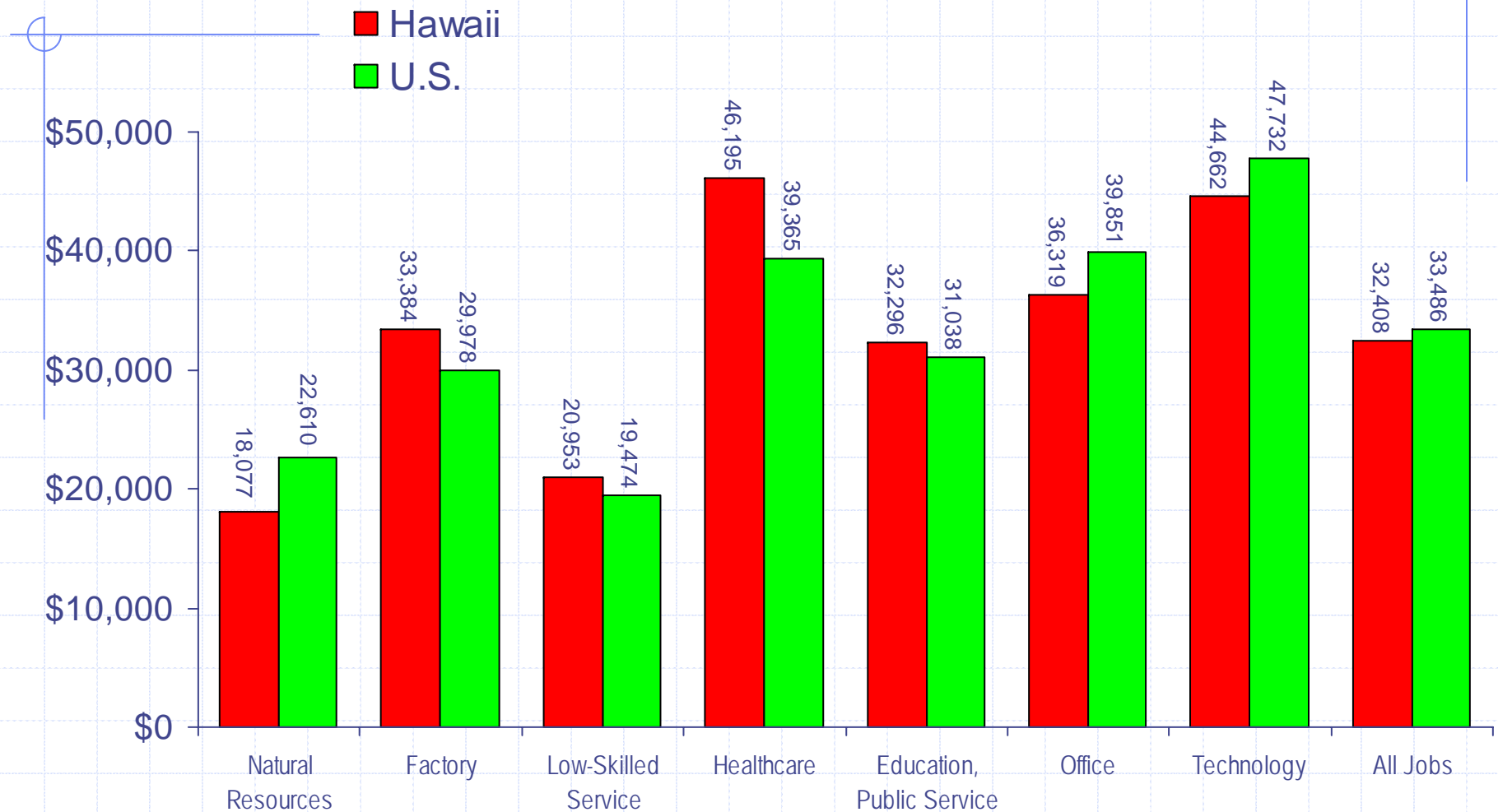


Employment by Job Type, 2000 (%)



Source: Tony Carnevale and Donna Desrochers, ETS (PUMS 2000 5% Sample, source data extracted from www.ipums.org at the University of Minnesota)

Earnings by Job Type, 2000 (\$)



Source: Tony Carnevale and Donna Desrochers, ETS (PUMS 2000 5% Sample, source data extracted from www.ipums.org at the University of Minnesota)

Hawai`i's Future is Dependent Upon a Skilled and Diverse Workforce

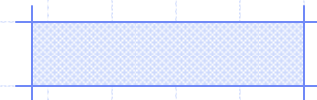
**To be Successful We Need to
Address Our:**

- **Job Quality Gap**
- **Worker Supply Gap**
- **Worker Preparation Gap**

The Job Quality Gap



An Insufficient Number of Living
Wage Jobs



Need to address Critical Issues

- **Weaknesses** (State Rank)
 - 49 Cost of Urban Housing
 - 48 Home Ownership Rate
 - 47 Industrial Diversity
 - 46 Crime Rate
 - 39 Involuntary Part-Time Employment
 - 34 Net Migration

Oahu's Economic Development Agenda

- Create more good paying jobs for residents
- Support and fund P-12 quality education
- Build a 21st Century leading university system
- Accelerate growth and diversification of knowledge/tech businesses

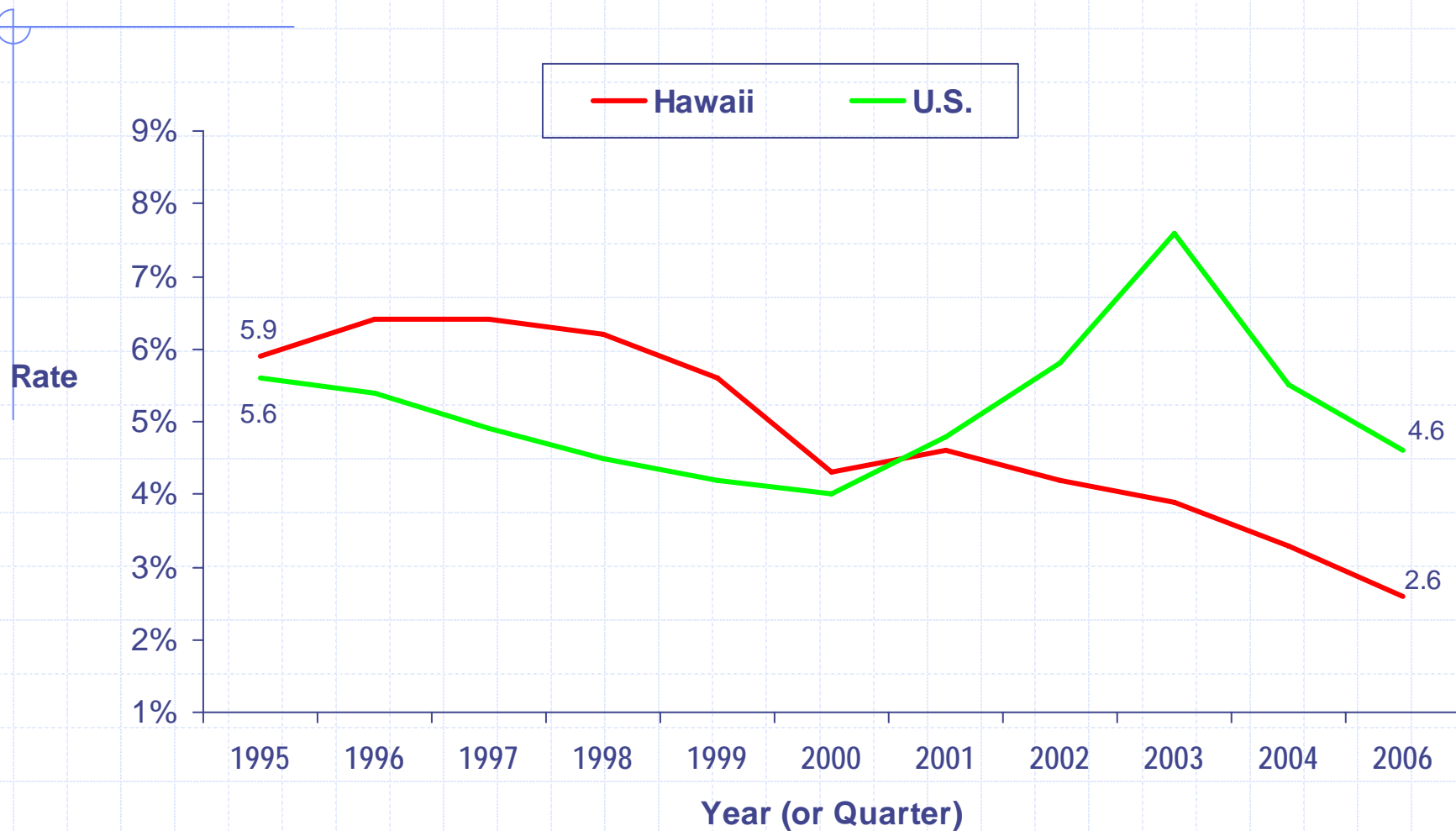


We Have Developing Opportunities, Do We Have the Workforce?

Oahu's Knowledge Based Clusters

- Life Sciences / Biotechnology.
- Information Technology.
- Telecommunications.
- Film & Digital Media.
- Diversified Agriculture.

Unemployment Rates—Hawaii and U.S., 1995-2006



Source: U.S. Bureau of Labor Statistics

We Need to Fill 29,000 Jobs Annually Through 2012

Occupation Title	Growth	Separations	Total	Percent
Total, All Occupations	11,354	17,689	29,043	100.0%
Food preparation and serving related occupations	1,415	3,146	4,561	15.7%
Office and administrative support occupations	764	2,645	3,409	11.7%
Sales and related occupations	656	2,413	3,069	10.6%
Education, training, and library occupations	1,015	1,060	2,075	7.1%
Building and grounds cleaning and maintenance occupations	879	916	1,795	6.2%
Transportation and material moving occupations	554	1,001	1,555	5.4%
Management occupations	537	891	1,428	4.9%
Personal care and service occupations	712	616	1,328	4.6%
Healthcare practitioners and technical occupations	779	499	1,278	4.4%
Construction and extraction occupations	481	699	1,180	4.1%
Protective service occupations	529	534	1,063	3.7%
Business and financial operations occupations	466	476	942	3.2%
Installation, maintenance, and repair occupations	247	586	833	2.9%
Healthcare support occupations	593	224	817	2.8%
Production occupations	252	560	812	2.8%
Arts, design, entertainment, sports, and media occupations	350	458	808	2.8%
Life, physical, and social science occupations	248	347	595	2.0%
Computer and mathematical science occupations	403	120	523	1.8%
Community and social services occupations	249	168	417	1.4%
Architecture and engineering occupations	147	185	332	1.1%
Legal occupations	76	69	145	0.5%
Farming, fishing, and forestry occupations	2	76	78	0.3%

Source: EMSI June 2005

Most Require Education Beyond HS

Occupation Title	Average Annual Openings		Total	Percent
	Due To Growth	Due To Separations		
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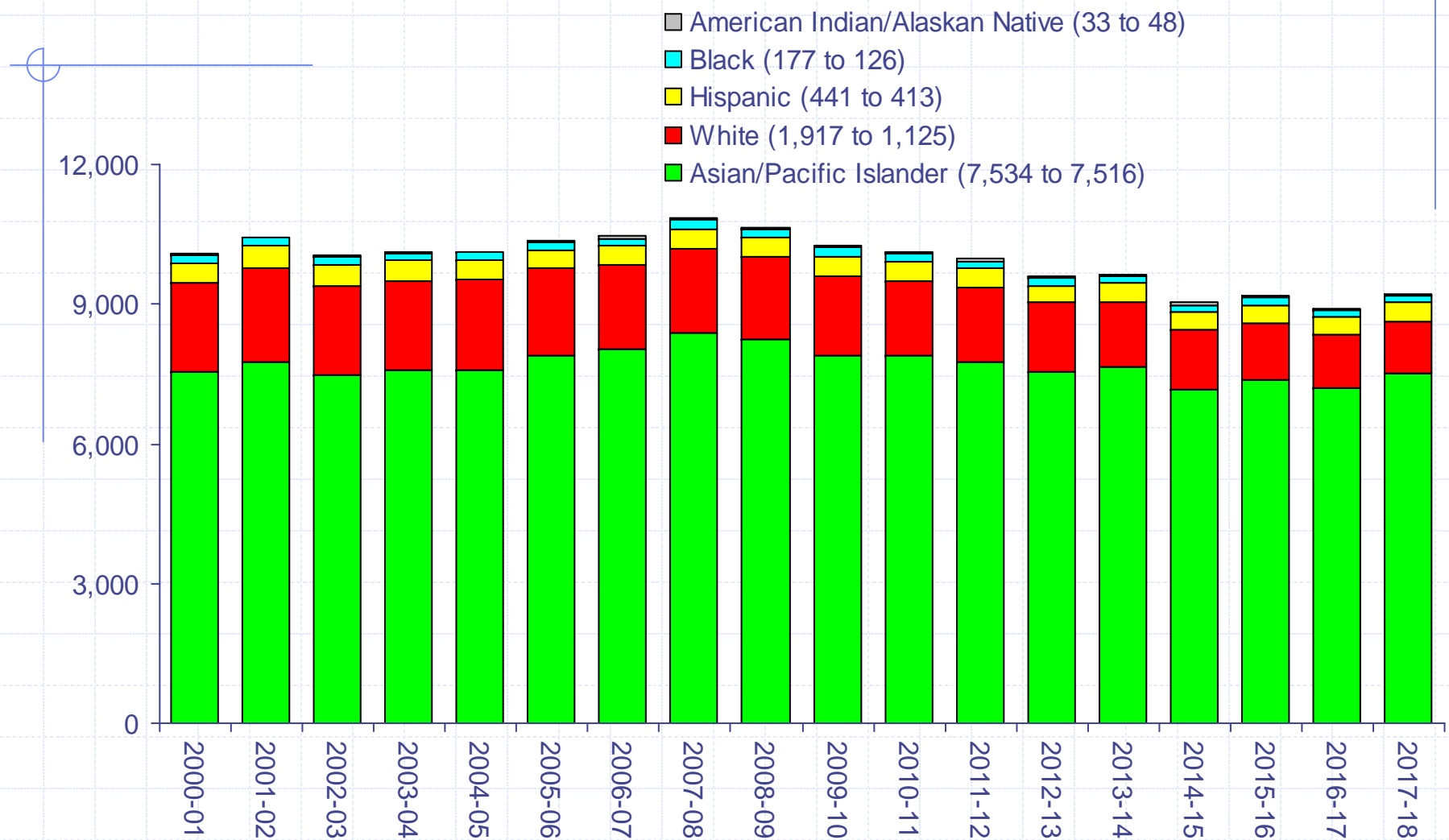
Source: EMSI June 2005

We Need to be Ready to Replace Skilled People in Critical Jobs



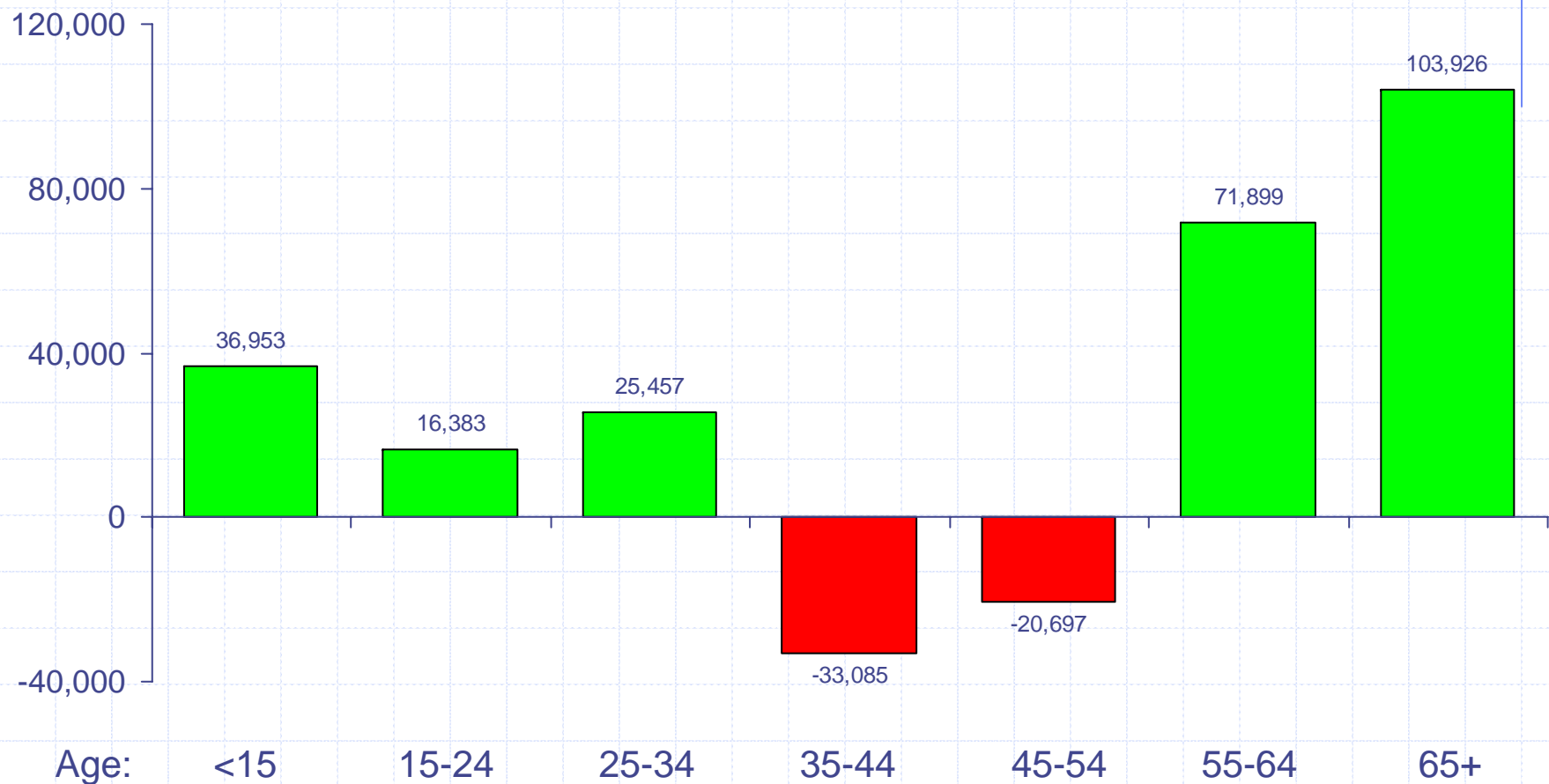
Source: U.S. Census Bureau, 2000 Census; 5%PUMS Files

HS Graduates Supply Less Than 1/2 of the 29,000 Annual Jobs to Fill



Source: WICHE High School Graduate Projections

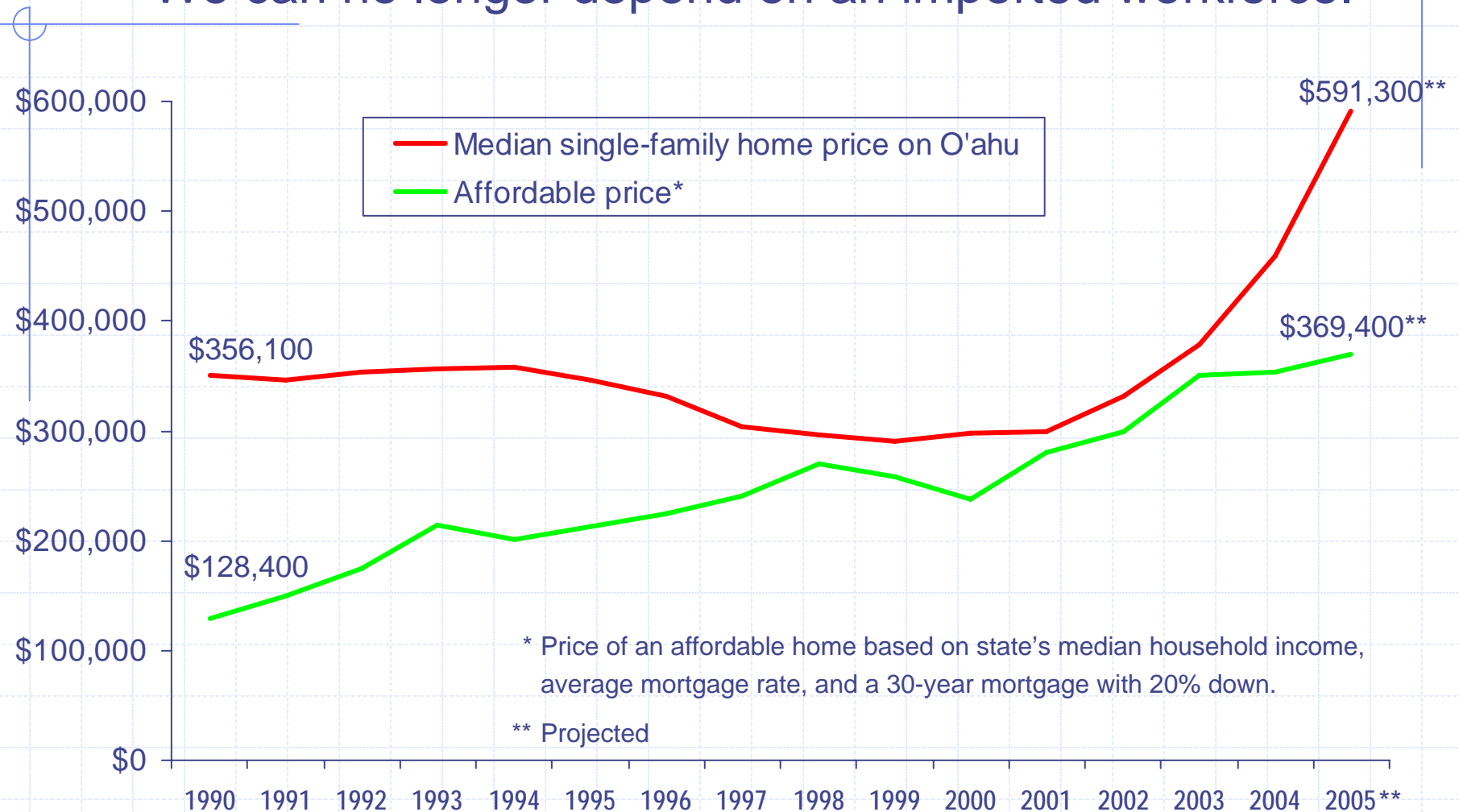
Projected Change in Population by Age Group, 2000 to 2020



Source: U.S. Census Bureau Population Projections

Homes on O'ahu—Beyond Affordable

We can no longer depend on an imported workforce.

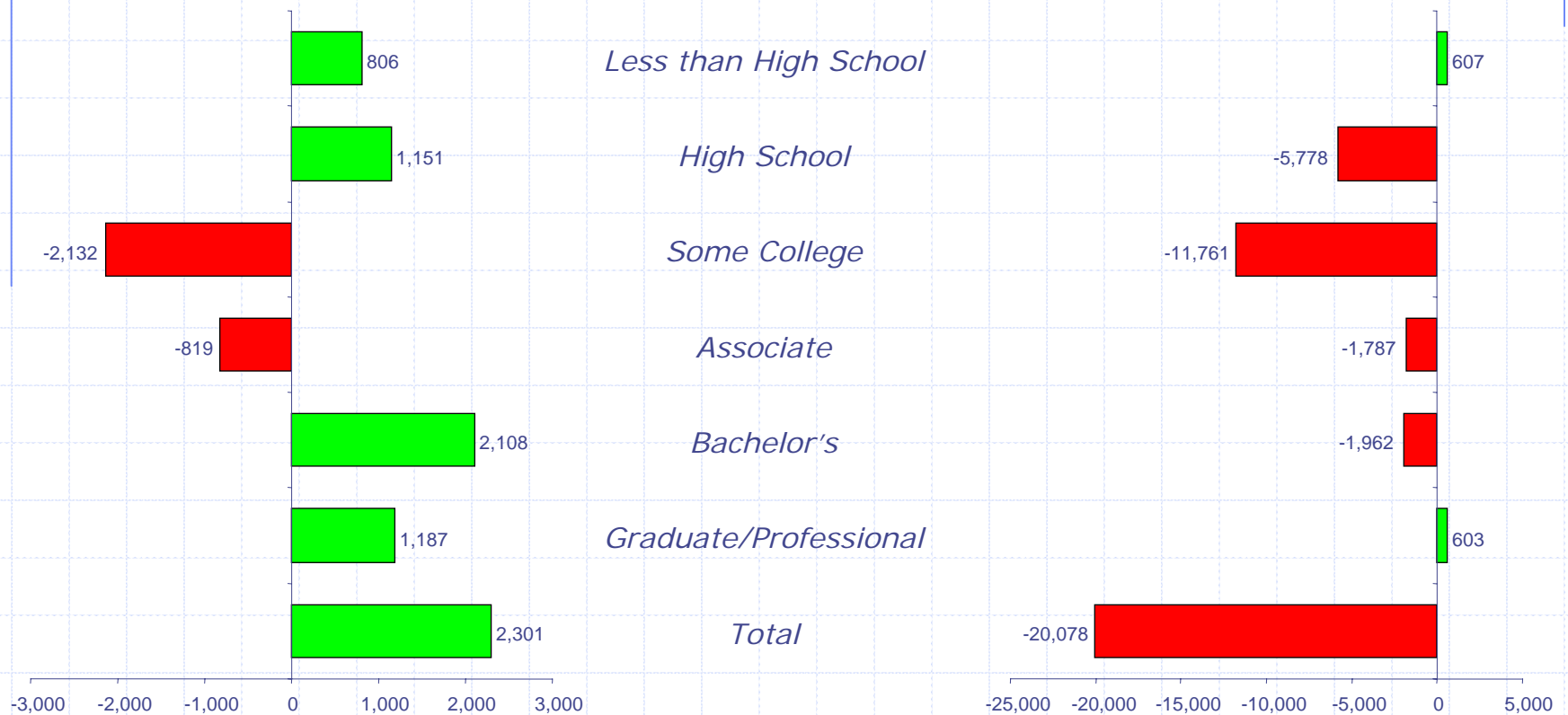


Source: *The Honolulu Advertiser*, University of Hawaii economist Carl Bonham

Hawaii Net Migration by Degree Level and Age Group

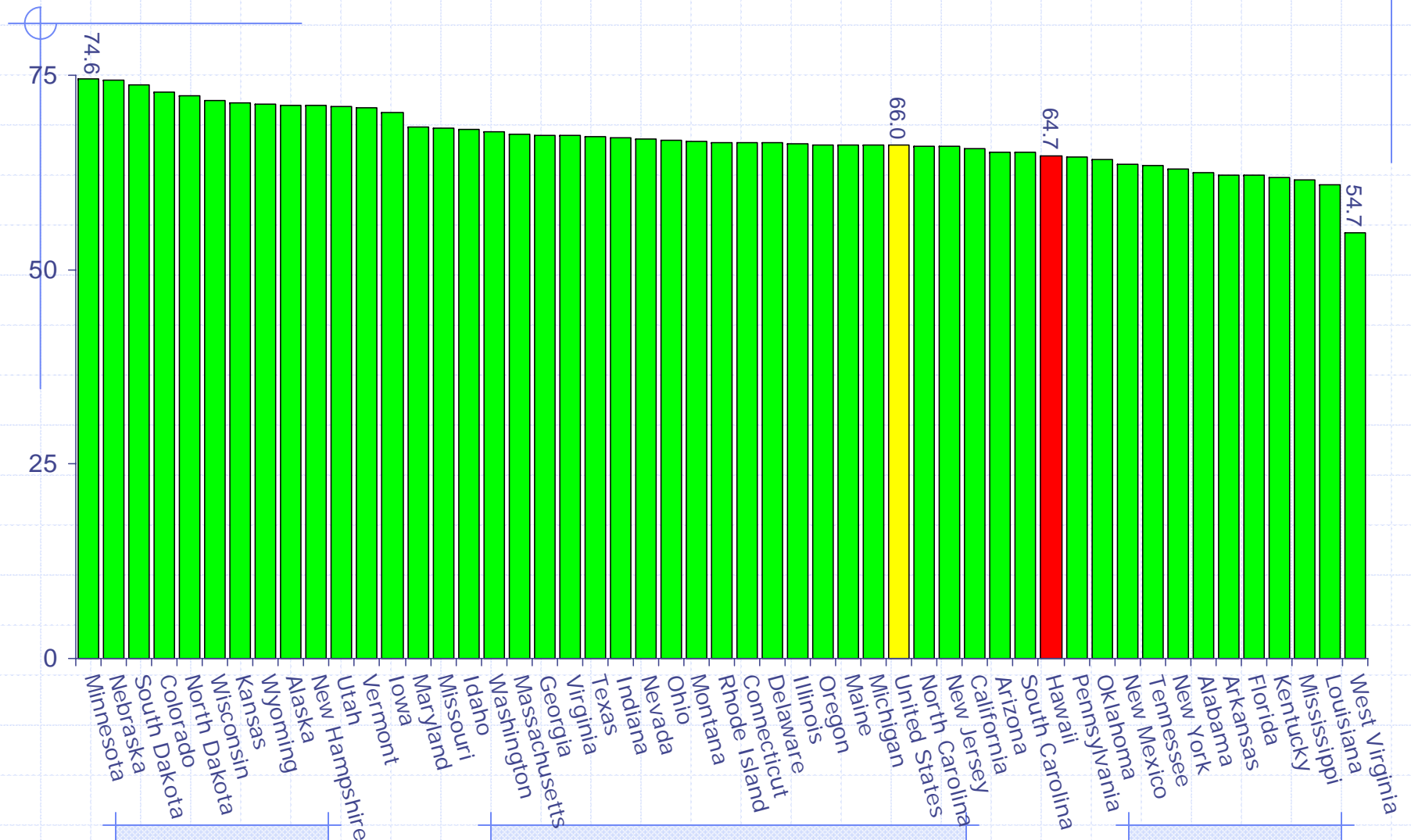
22- to 29-Year-Olds

30- to 64-Year-Olds



Source: U.S. Census Bureau, 2000 Census; 5% Public Use Microdata Sample (PUMS) Files

Percent of Civilian Population Participating in the Workforce, 2004

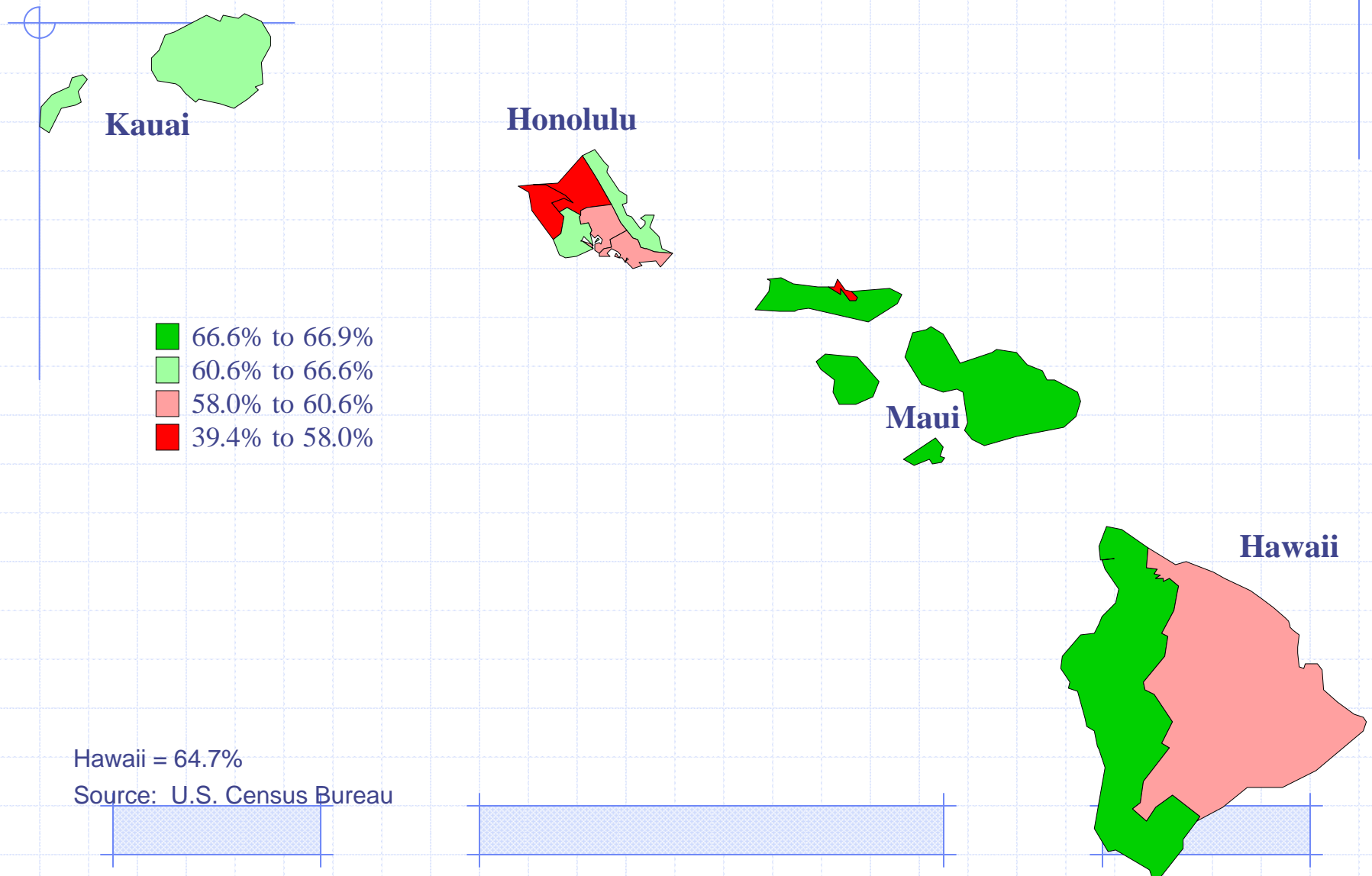


Source: U.S. Census Bureau

Who is Not Currently in our Workforce (age 25-64)?

- **More Likely to:**
 - Be Poorly Educated;
 - Be a TANF Recipient (Welfare);
 - Have a Disability;
 - Be an Ex-Offender; or
 - Reside Outside the Urban Core

Percent of Population Age 16 and Older Participating in the Workforce, 2004



Hawaii Civilians Age 25-64 in the Workforce by Education Attainment, 2005

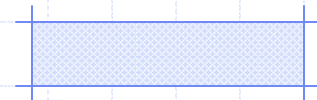
	In Civilian Workforce		Not in Civilian Workforce	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Less than High School	34,623	63.8	19,658	36.2
High School Diploma or GED	144,239	75.4	46,967	24.6
Some College, No Degree	104,974	78.1	29,469	21.9
Associate Degree	55,994	81.1	13,074	18.9
Bachelor's Degree	111,765	83.9	21,485	16.1
Graduate or Professional Degree	53,100	84.5	9,724	15.5

Source: U.S. Census Bureau, 2005 ACS PUMS File

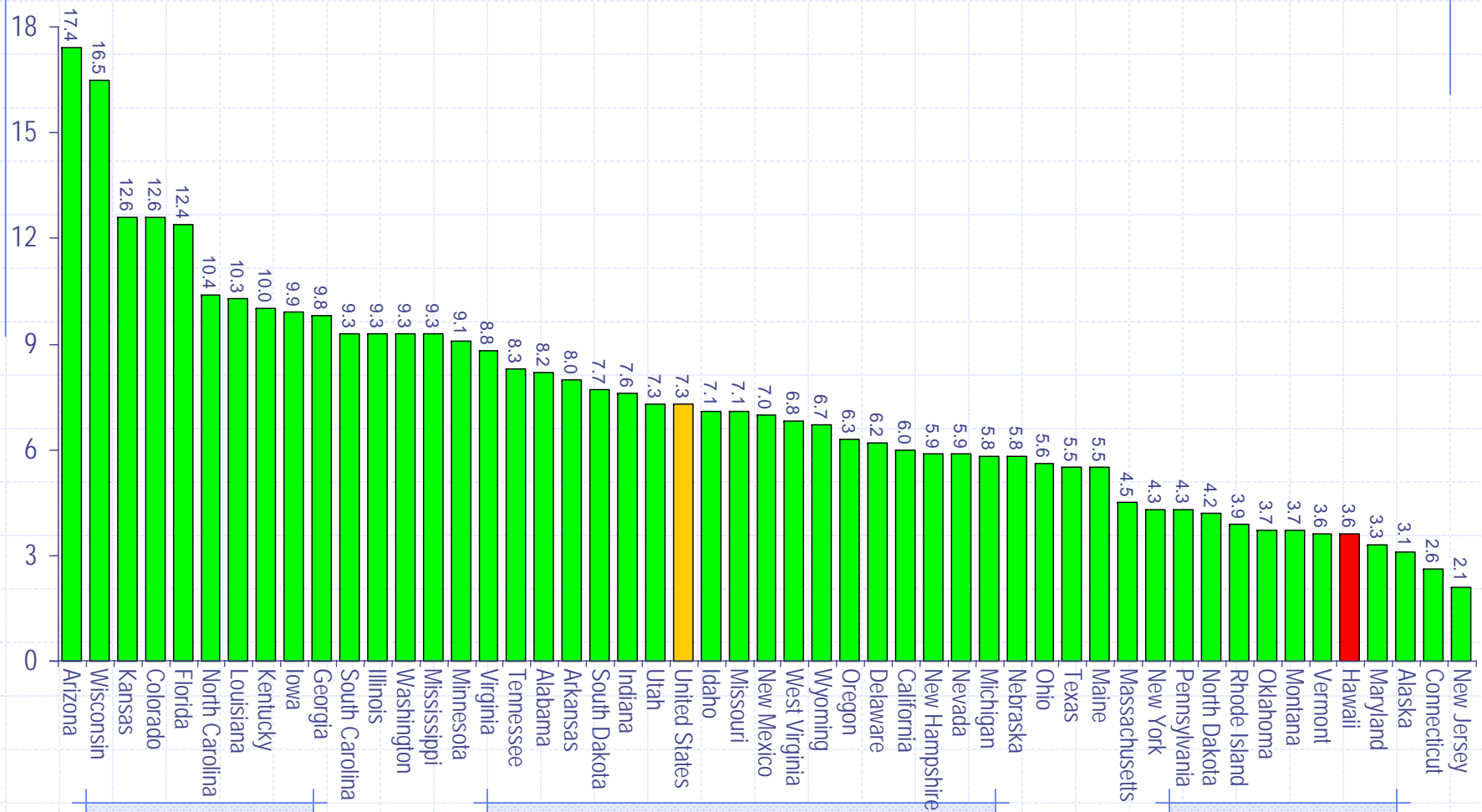
The Worker Preparation Gap



An Insufficient Number of People
with Needed Skills

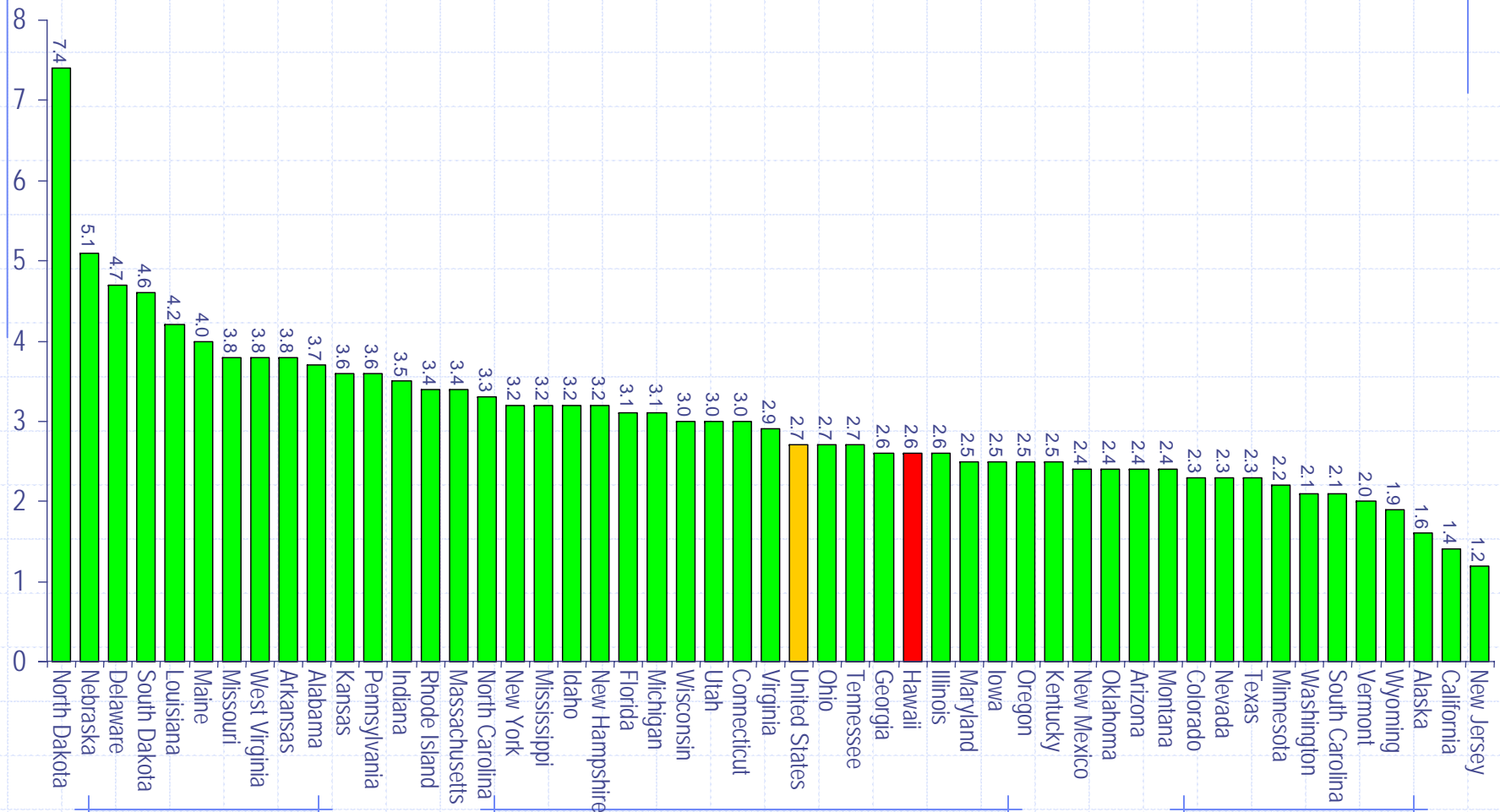


Number of 2-Year Degrees and Certificates in Health Sciences Awarded (2003) Per 100 HS Graduates Three Years Earlier, 2000



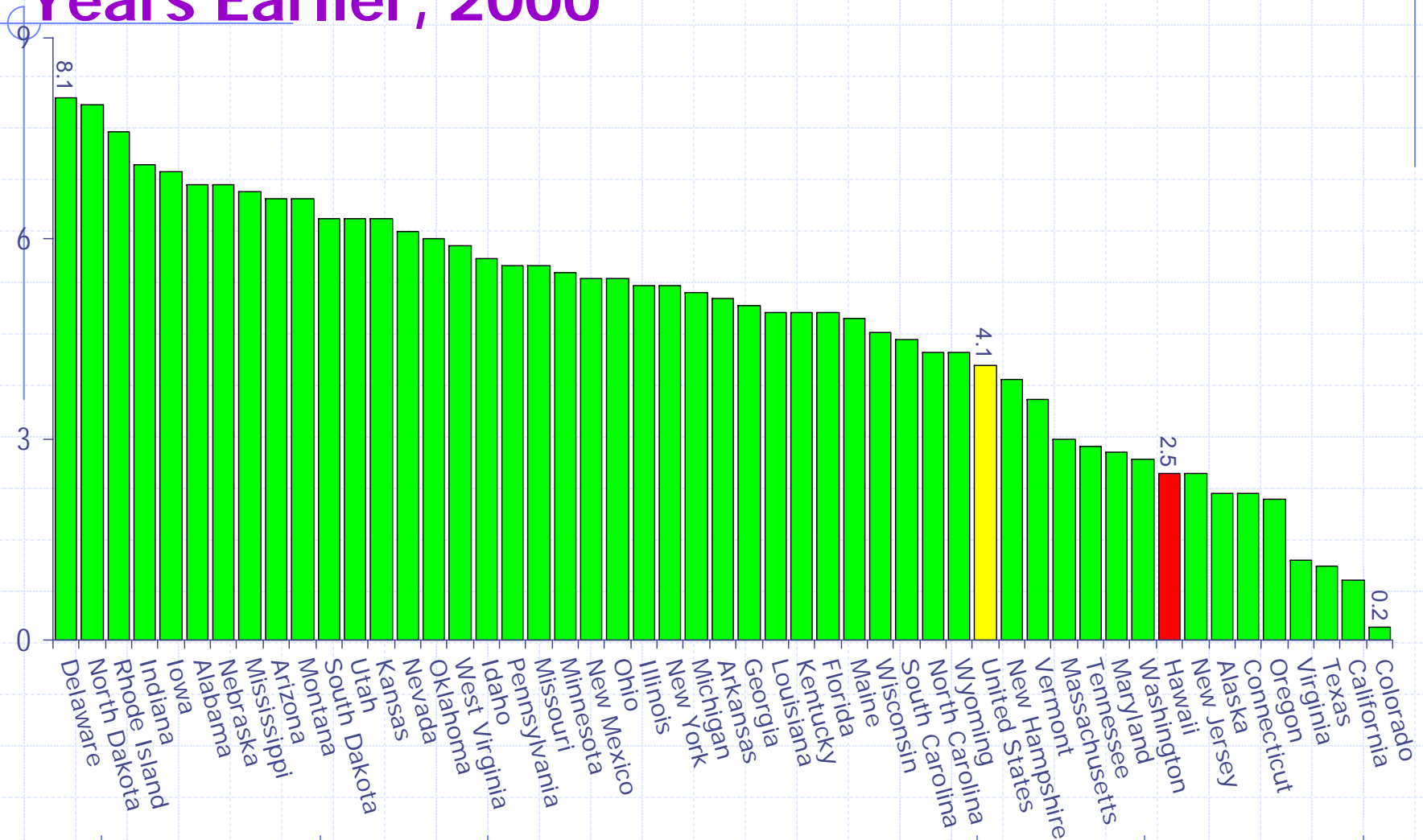
Source: NCES-IPEDS Completions 2002-03; WICHE High School Graduates, 2000

Number of 4-Year Degrees in Health Sciences Awarded (2003) Per 100 High School Graduates Six Years Earlier, 2000



Source: NCES-IPEDS Completions 2002-03; WICHE High School Graduates 1997

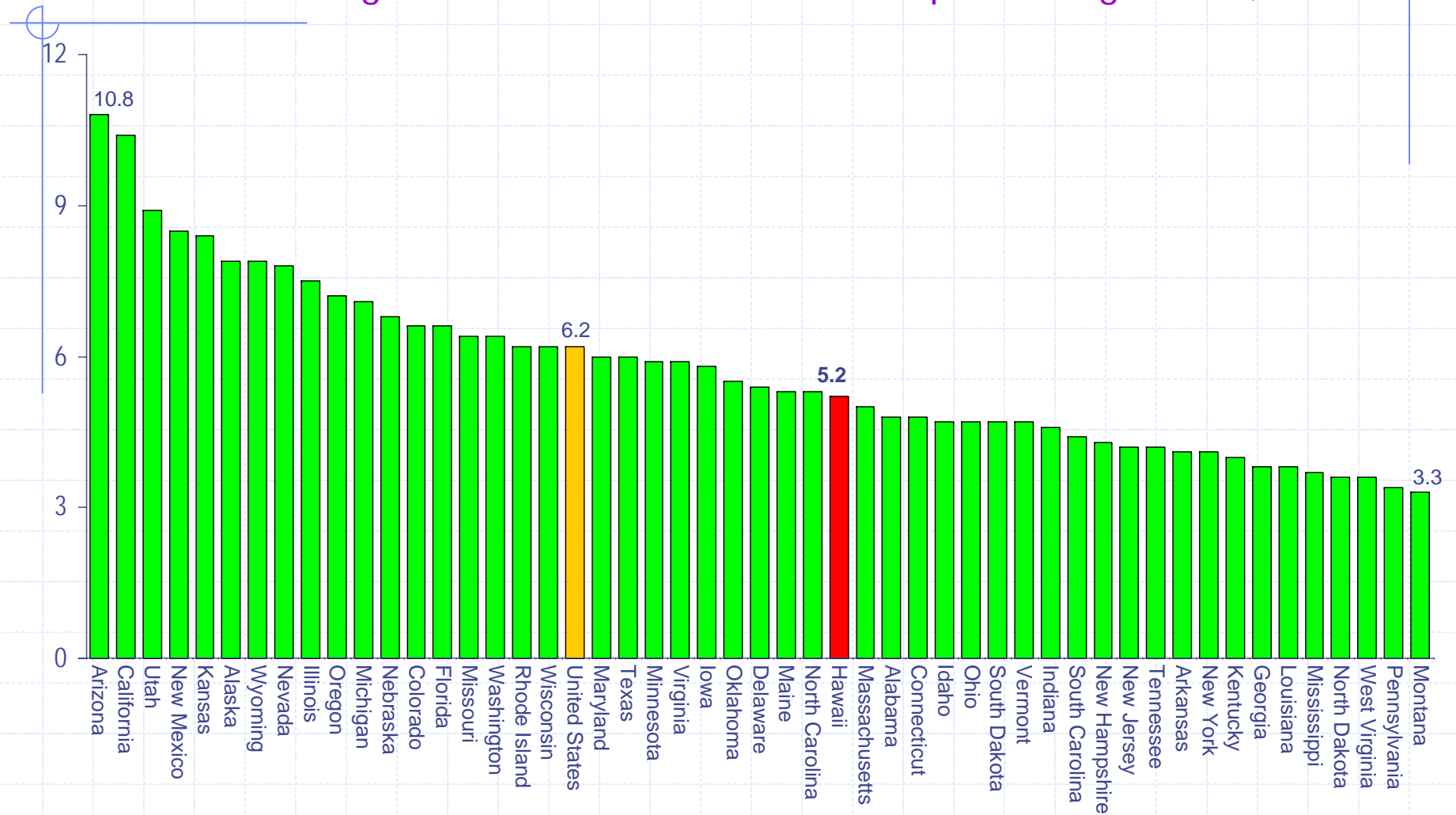
Number of 4-Year Degrees Awarded (2003) Per 100 High School Graduates Six Years Earlier, 2000



Source: NCES-IPEDS Completions 2002-03; WICHE High School Graduates, 1997

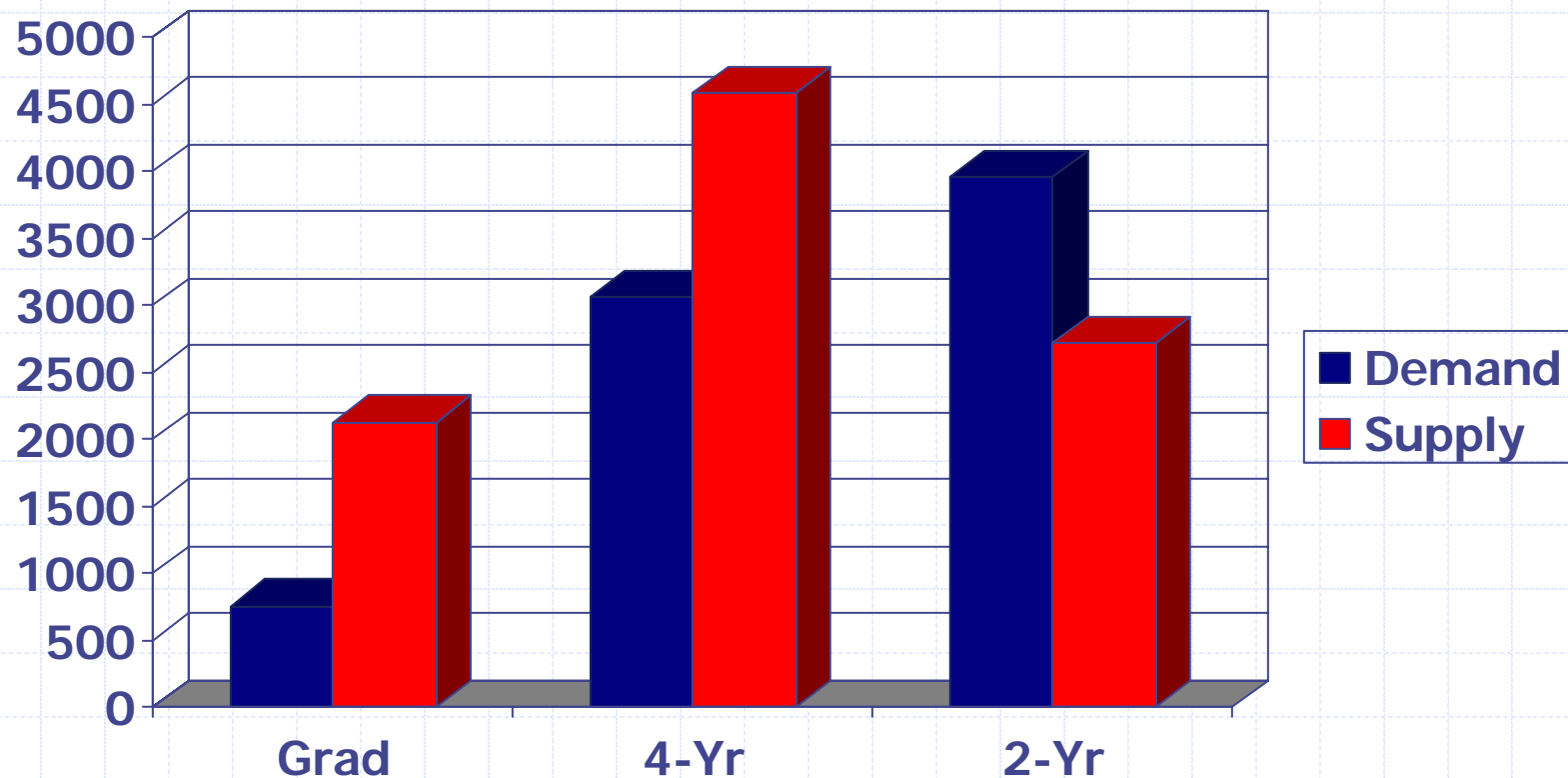
We Need to Get More Adults to Enroll in Further Education

Part-Time Undergraduate Enrollment as a % of Population Age 25-44, 2000



Source: NCES-IPEDS, U.S. Census Bureau

Jobs & Education Demand/Supply Gap 2005



POSTSECONDARY PARTICIPATION AND COMPLETION



	<u>Top States</u>	<u>HI</u>
Chance for college by age 19	53%	32%
18- to 24-year-olds enrolling in college	41%	36%
1st year community college students returning their 2nd year	62%	51%
Students completing a bachelor's degree within 6 years	64%	47%



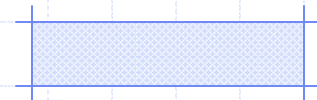
We Need Better Outcomes

- **We are less successful than the top states in the rate of persistence and graduation of adult students.**
- **There are major barriers to adult degree completion**
 - Inadequate financial support for low and moderate income individuals
 - Insufficient employer incentives to support employee continuing education
 - Lack of affordable child care
 - Scheduling conflicts between work and school
 - Lack of preparation and curricular options

Education Pipeline Performance



An Insufficient Number of
Individuals Prepared for Further
Education or Training



We Need Better Outcomes

- **We have a leaky education to work pipeline, resulting in an insufficient number of individuals prepared for further education or training.**

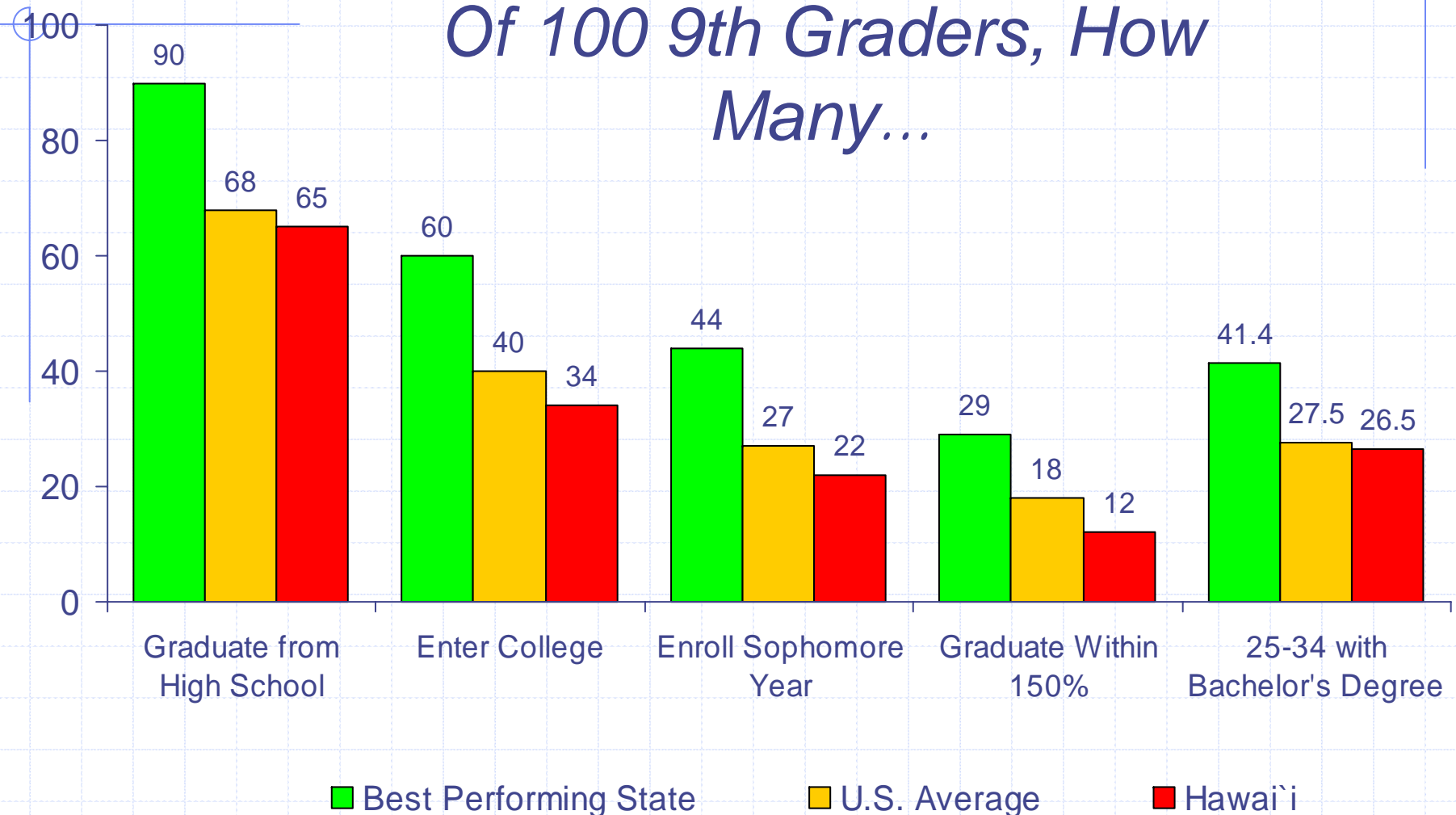
Key Transition Points in the Education to Work Pipeline

- Complete High School
- Enter College
- Finish College
- Enter the Workplace



Student Pipeline - 2002

Of 100 9th Graders, How Many...



Source: The National Center for Public Policy and Higher Education 2004

PREPARATION

2006 Hawaii

MEASURING UP
2006
THE STATE REPORT CARD
ON HIGHER EDUCATION

C-

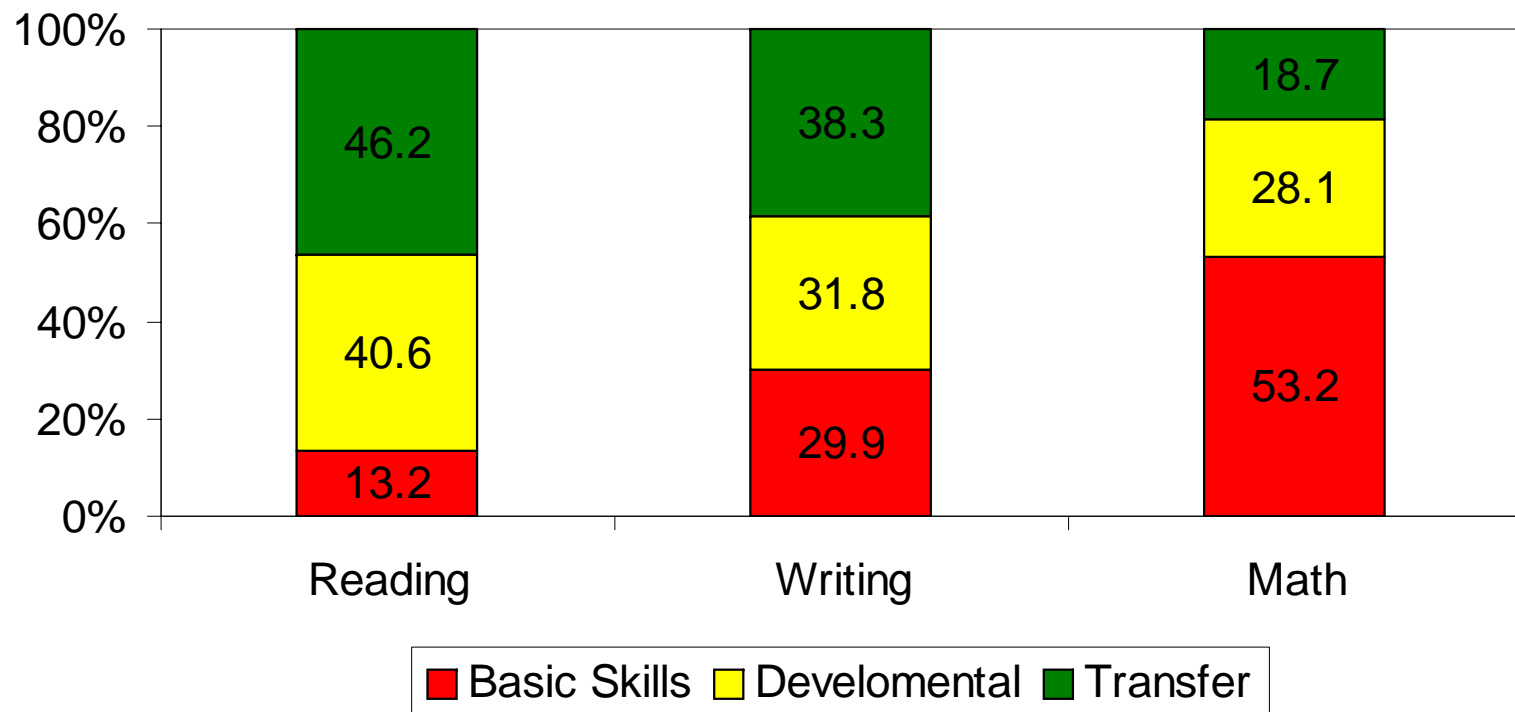


PREPARATION	HAWAII		Top States 2006
	1992*	2006	
High School Completion (20%)			
18- to 24-year-olds with a high school credential	94%	94%†	94%
K-12 Student Achievement (35%)			
8th graders scoring at or above "proficient" on the national assessment exam:			
in math	14%	18%	38%
in reading	19%	18%	38%
in science	15%	15%	41%
in writing	15%	18%	41%
Low-income 8th graders scoring at or above "proficient" on the national assessment exam in math	7%	7%	22%
Number of scores in the top 20% nationally on SAT/ACT college entrance exam per 1,000 high school graduates	110	153	237
Number of scores that are 3 or higher on an Advanced Placement subject test per 1,000 high school juniors and seniors	92	112	217

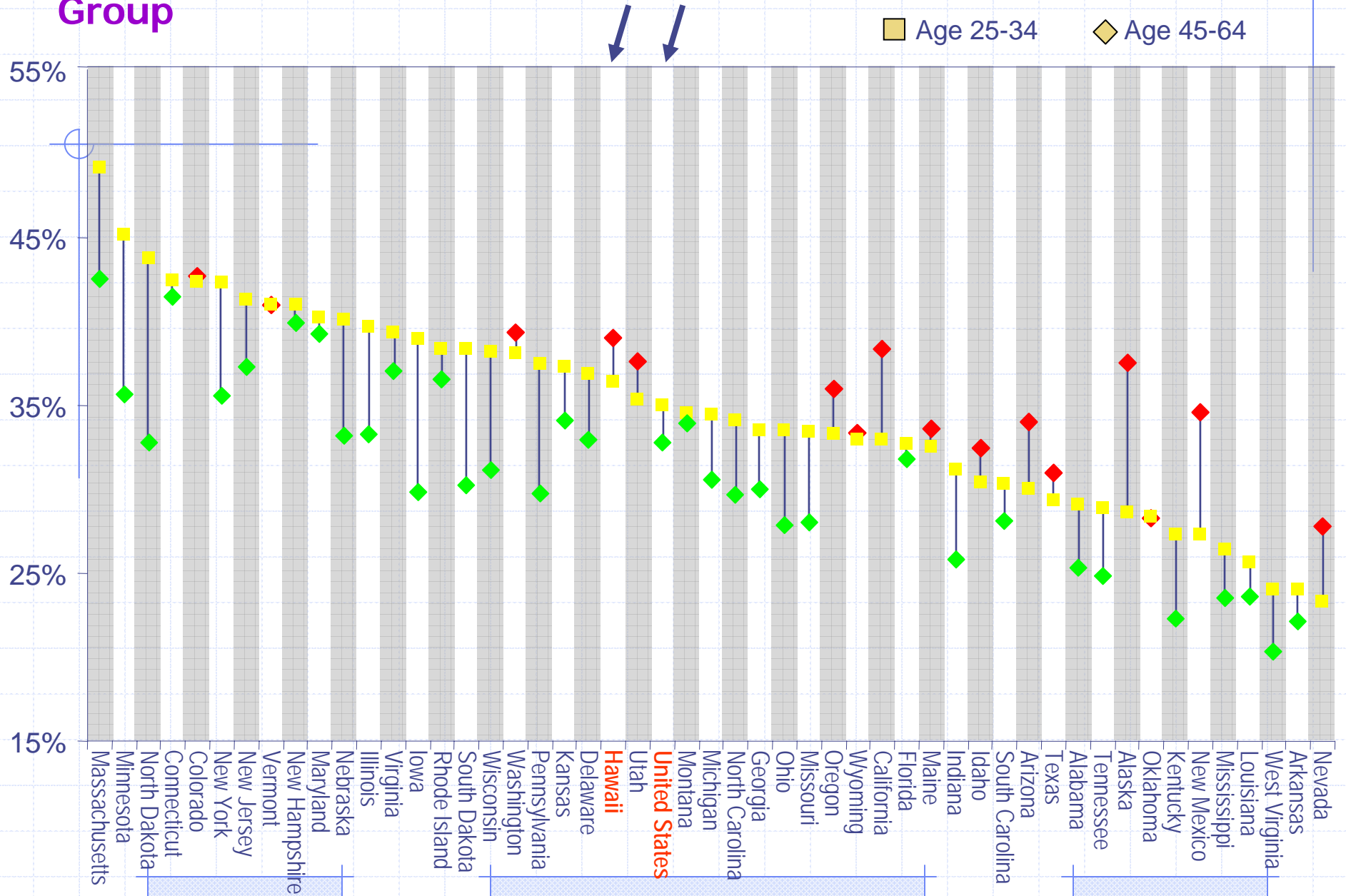
- We are a top state when we measure rate of HS graduation.
- We are far behind, however, when we look at actual student performance in skills critical to success in post-secondary education and the new jobs.
- Despite improvement, Hawaii lags many other states in preparing students to succeed in college.

UH Community Colleges' Entering Student Placement

**Fall 2006 Recent High School Graduates
COMPASS Test Takers**

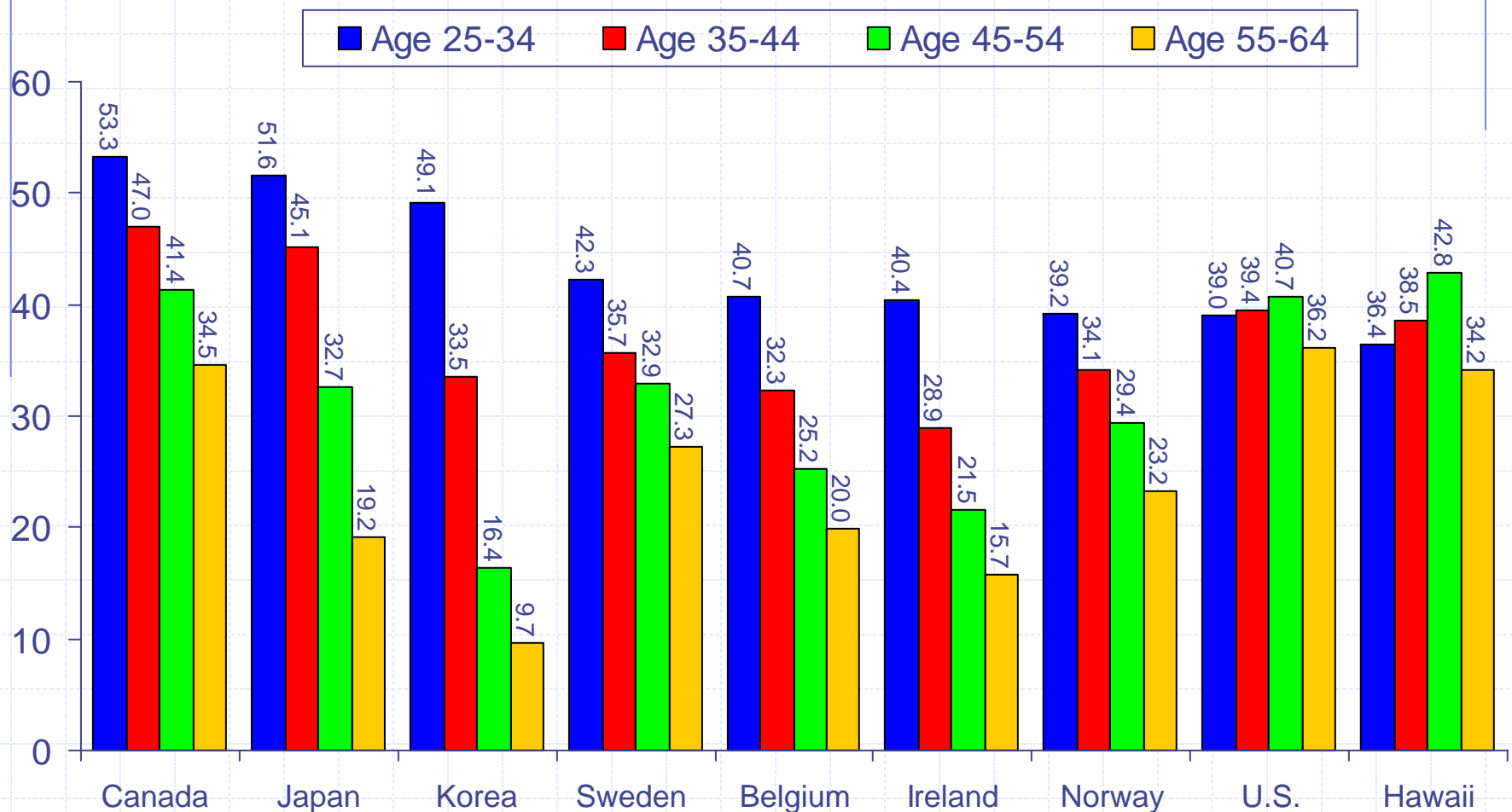


Differences in College Attainment (Associate and Higher) by Age Group



Source: U.S. Census Bureau, 2000 Census

Differences in College Attainment (Assoc. and Higher) by Age Group—Hawaii, U.S. and Leading OECD Countries, 2004



Source: OECD, *Education at a Glance 2005*

The Bottom Line

- **We Need to Enhance the State's Stock of Human Capital**
 - Improved Competencies of High School Graduates
 - Increased Skills of Adults with Less than a High School Education
 - Improve Participation and Graduation Rates of College Students

(continued)

The Bottom Line (cont.)

- **We Need to Prepare More Skilled Workers in Critical Need Areas**
 - Nursing/Allied Health
 - Teachers
 - Science Technologies
- **We Need to Expand and Diversify the State's Economy**
 - Technology Transfer
 - Rapid Response to Employer's Training Needs

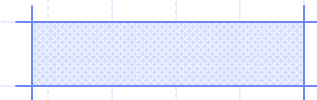
The Bottom Line (cont.)

**We Need to Address
These Issues as
Appropriate in
All Parts of the State**

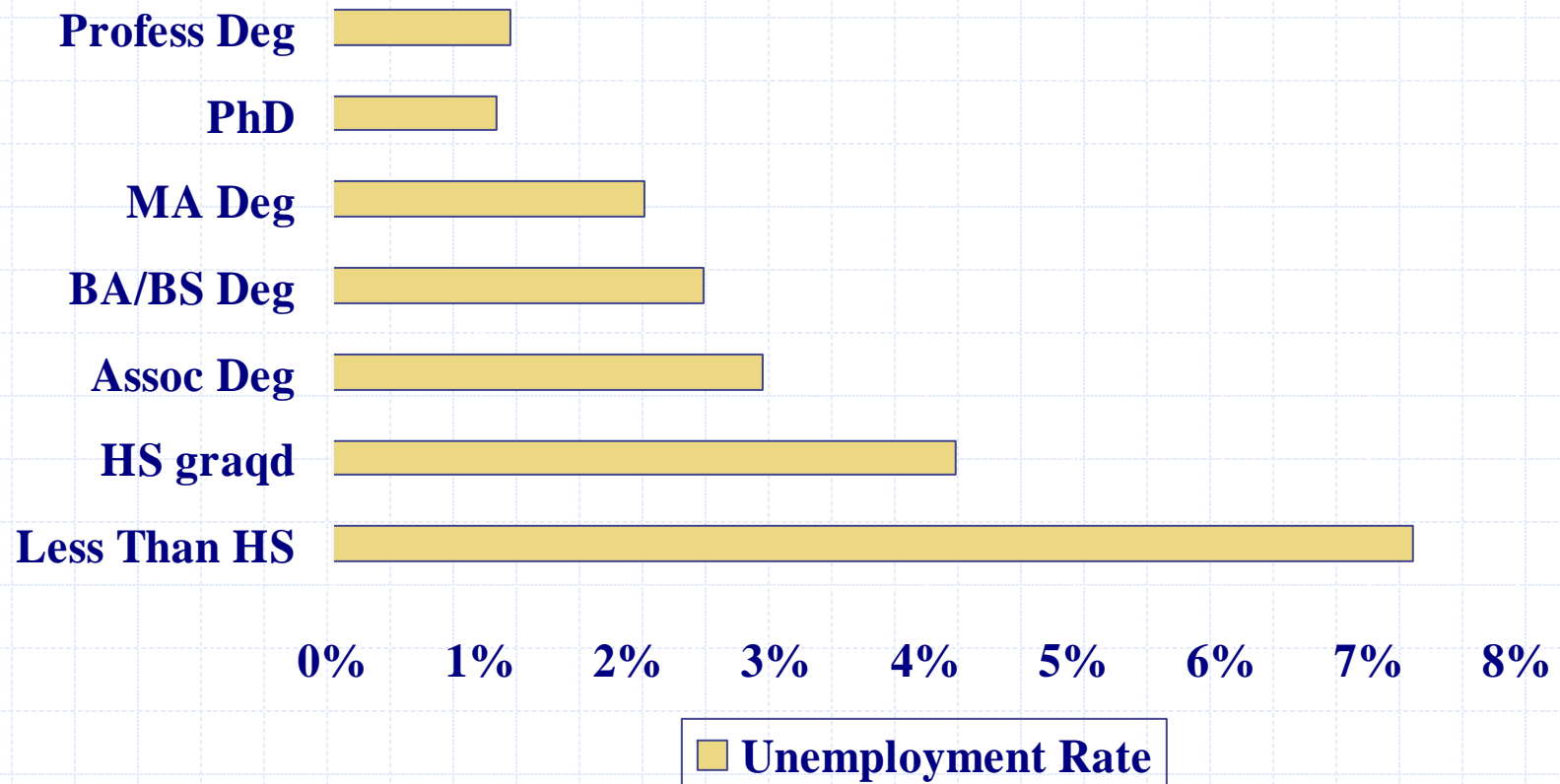
Education and Training Pay



Investment in Education Returns
Future Economic Benefits



Education and Training Pay Increased Employability

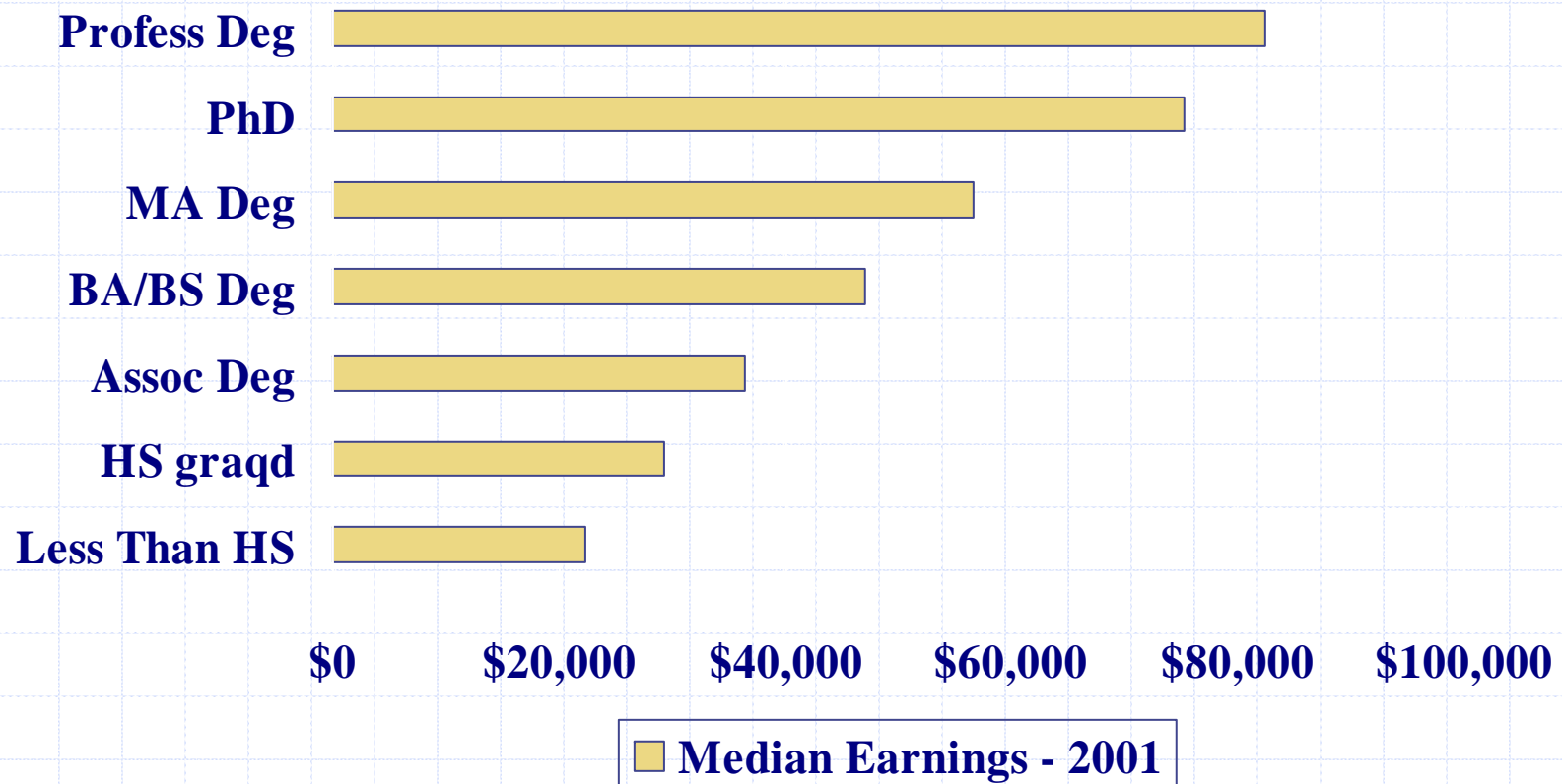


Source:

bor Statistics

Education and Training Pay

Increased Annual Earnings

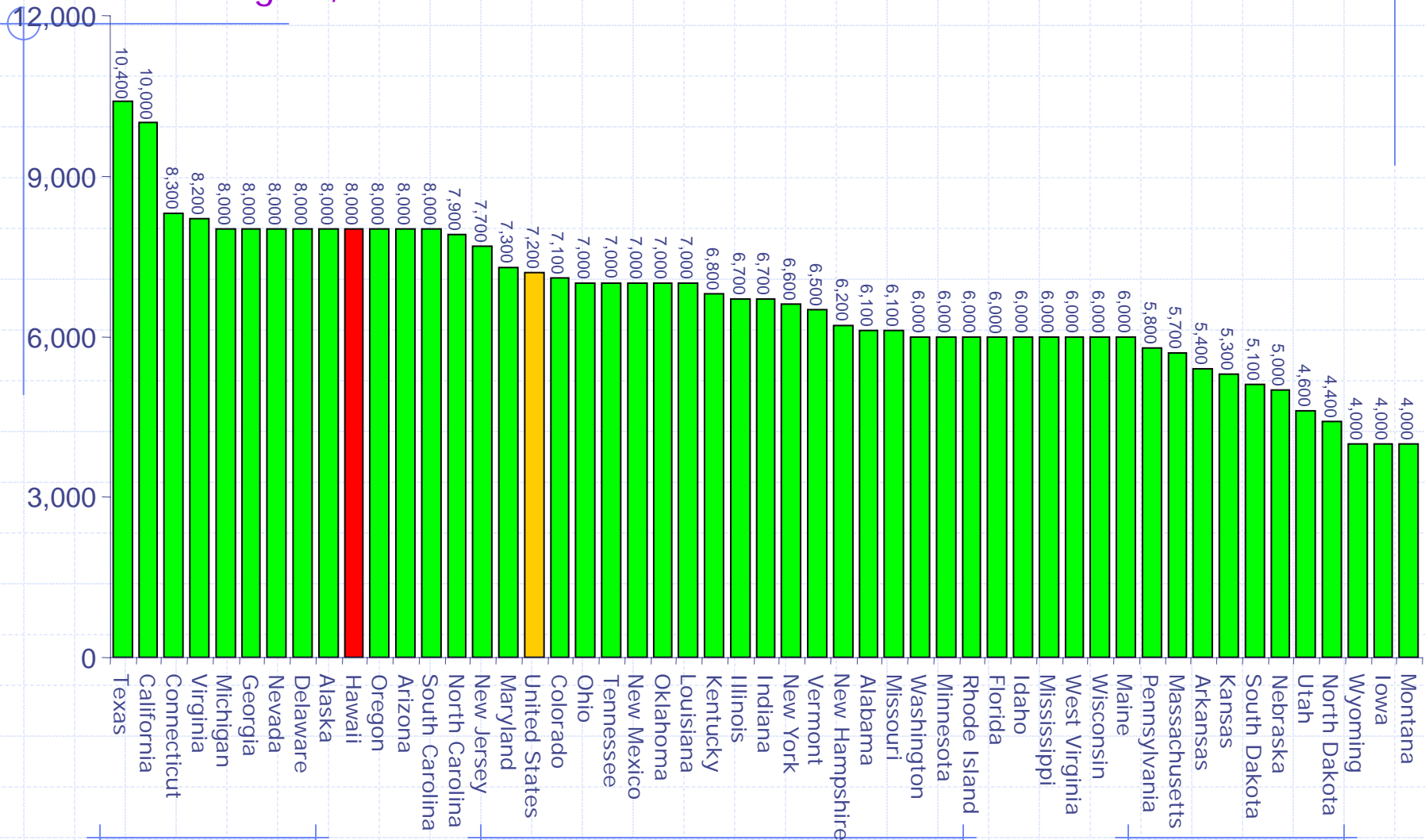


Source:

Census

Education and Training Pay

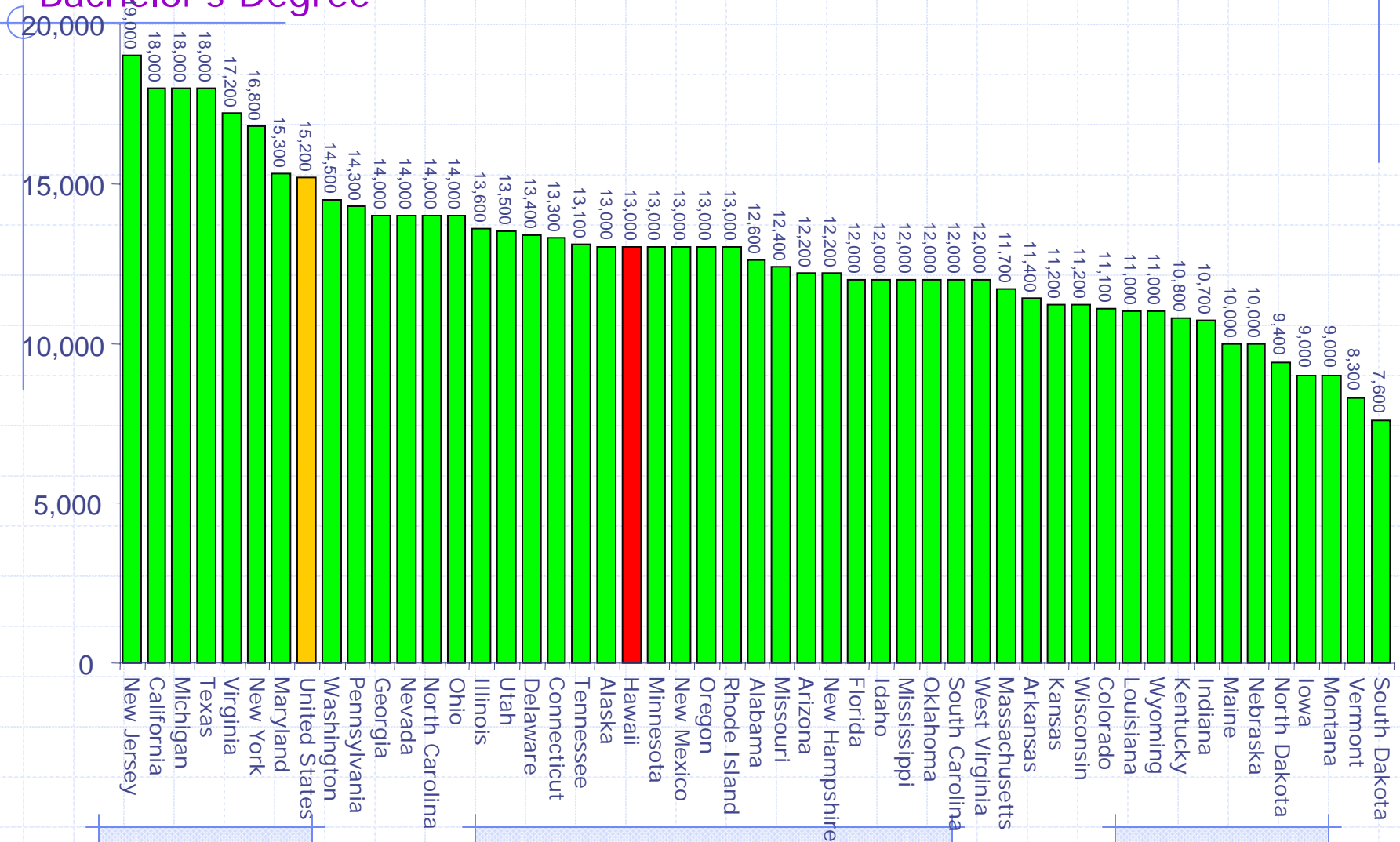
Difference in Median Earnings Between a High School Diploma and an Associate Degree, 2000



Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

Education and Training Pay

Difference in Median Earnings Between a High School Diploma and a Bachelor's Degree



Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

Confronting the Future

David Heenan – *Flight Capital* (2005)

- Know Thy Competition
- Adapt – or Die
- Spur Immigration Reform
- Dust off the Welcome Mat
- Target the Best Minds
- Encourage Dual Loyalties
- Reform – Really Reform – Public Education
- Nourish the Halls of Ivy
- Celebrate Science and Technology
- Expand the Workforce
- Reconsider National Service
- **Act Now**



Focusing on Hawai`i's Workforce Issues



NGA Center for
BEST PRACTICES



Hawai`i NGA Project Team

- Mr. Micheal Boughton, WDC
- Ms. Susan Doyle, WDC
- Mr. Mike Fitzgerald, WDC
- Ms. Kathy Kawaguchi, DOE
- Mr. Gary Kemp, DHS
- Ms Chris Mc Colgan, OWIB
- Mr. Michael Rota, U of Hawai`i, Team Leader
- Senator Norman Sakamoto, WDC
- Mr. Robert Shore, DBEDT
- Mr. Mark Valencia, Gov. Office



Hawai`i NGA Project Vision

To create a more coherent network of postsecondary educational opportunities which align with the State's economic development and workforce preparation goals, and contribute to the diversification of Hawai`i's economy, while preserving the environmental and cultural integrity of Hawai`i.



Hawai`i NGA Project

GOAL 1

Increase the percentage of Hawai`i residents employed in family economic self-sufficient “living-wage” jobs (those paying \$40,000 or more per year), particularly in knowledge-based sectors

- ☐ Implement state-level policies, post-secondary programs, and student support services designed to encourage and assist more Hawai`i adult learners, including incumbent workers, to successfully complete degrees and certificates.
- ☐ Develop the capacity to design and deliver post-secondary education and training customized to the needs of employers and employees in sectors that are state priorities.





Hawai`i NGA Project

GOAL 2

Reduce the gaps between anticipated workforce demand and the supply of individuals with post-secondary degrees and certificates.

- ☐ Collate and validate demand-supply forecasts for job openings in existing industry and business sectors.
- ☐ Determine post-secondary system capabilities to educate and train Hawai`i residents to address anticipated entry-level workforce requirements, and take the steps needed to achieve an appropriate balance between workplace demand and student supply.
- ☐ Expand post-secondary program research and development capacity to more quickly respond to changing education and training opportunities



Hawai`i NGA Project

GOAL 3

Create and increase the opportunities for participation in post-secondary education, training, and employment by people with employment barriers

- ☐ Seek avenues to extend the applicability and usefulness of training programs for people with employment barriers.
- ☐ Develop specific programs and services for selected client groups such as TANF clients, Underprepared adults, etc.
- ☐ Develop and expand the capacity of the postsecondary remedial education focused upon the context of specific career pathways
- ☐ Establish and fund a state scholarship program for low-income youth and adults.



Hawai`i NGA Project

GOAL 4

Implement policies and practices designed to increase the number of incumbent workers involved in post-secondary education and training by developing support for companies who encourage such opportunities for their employees, including non-management workers.

- ☐ Develop State Policy Options, such as Lifelong Learning Accounts (LiLAs), to promote and support the design, delivery, and utilization of incumbent worker training programs.
- ☐ Reenergize, or develop an alternative to, the Hawai`i Employment Training Fund (ETF)



Hawai`i NGA Project

GOAL 5

Increase the number of adults graduating from Hawai`i institutions with postsecondary credentials by 25% by 2010

- ☐ Improve the throughput of the postsecondary education pipeline
- ☐ Improve the alignment between high school graduates' competencies and postsecondary education entry expectations
- ☐ Develop an annual State reporting system that examines and highlights the issue of the efficiency and performance of the Hawai`i postsecondary education pipeline.





The Workforce Development Challenges Facing Hawai`i

For Further Information

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mrota@hawaii.edu